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| EXAMINER | |
|---|---|
| VU, TUAN A | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2193 | |

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/741,219 | BOSWORTH ET AL. | |
| | Examiner | Art Unit | |
| | Tuan A. Vu | 2193 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *25 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. This action is responsive to the Applicant's response filed 9/25/06.

As indicated in Applicant's response, no claims have been amended. Claims 1-21 are pending in the office action.

### *Claim Objections*

2. Claims 1, 11, and 21 are objected to because of the following informalities: The phrase 'unnested data processing cell' appears to be improper use of language and requires syntactic adjustment to be commensurate with the Specifications. Specifically, in the examples of markup language shown (Specifications, pg. 6-8, 12), the cells described as effectuating a computation order are seen as being absolutely nested under standard protocol of Markup language. Lacking specific definition of the term 'unnested' anywhere (the term *nest* not mentioned once) in the disclosure, it would be impossible to give such term a meaning that would be reasonably different from what is observed from the nested cells of the above examples. That is, the cells distinguish from each other in that some cell includes a specification for processing data the realization of which is perceived in the scope of another cell, both cells being nested inside one or more global cell contexts, analogous to what a standard XSL document should behave. The limitation would be treated as though both cells are encompassed under some more global nest or scope and they are distinct only in terms that one cell is for including a form of processing directive the realization of which is included in the other cell.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-6, 8-16, 18-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Renner et al., USPN: 6,993,657(hereinafter Renner)

**As per claim 1**, Renner discloses a method of computing, comprising:

receiving at execution time (e.g. *XSL sheets, statements* - col. 39, line 62 to col. 42, line 34), a data processing specification having a first and a second unnested data processing cell specification specifying a first and a second data processing cell respectively, with each data processing cell specification having a plurality of statements including a formula specifying an action or computation (e.g. Table 4, col. 38: <...*METHOD="POST" ACTION= "dca.dca_forum_data.set_args"*> *xsl: apply-templates select=...*> lines 16-18; *xsl: value-of select* - lines 26, 34, 38, 40) the first data processing cell having a data dependency on the second data processing cell (e.g. Table 4, col. 38-39: first cell: line 33, 36, 39; second cell: lines 34, 37, 40 – Note: *fieldname*, *fieldlbl*, and *fieldval* depend on *@name*, *@label* and *@value*, respectively), and specified in a manner to be analyzed before the second data processing cell (Note: line 33, 36 processed before line 34, 37);

analyzing in real time, the first and then the second data processing cell specification to determine execution order of said actions/computations specified by said first data processing

cell specifications, based at least in part on interaction or computation references between said actions or computations specified (e.g. col. 38, line 28 to col. 42, line 34 – Note: using statements and formula/action inside xsl statement tags to effectuate HTML reads on analyzing and determine order of execution based on tag sequencing of specifications therein); and

effectuating the data processing specified by the data processing specification in accordance with the determined execution order of said actions/computations specified by said first and second data processing cell specifications ( e.g. col. 41, lines 42 to col .42, line 19; col 43, lines 19-50- Note: SQL calls or POST method and variable processing with value substitution thereto reads on effectuating specification according to order of execution).

**As per claim 2**, Renner discloses each of said first and second data-processing cell specifications being delineated by a beginning and an ending data processing cell specification tag (e.g. <xsl: … /> - Table 4, lines 33, 34).

**As per claim 3**, Renner discloses wherein said first data processing cell specification has a formula referencing a value (e.g. *fieldval, @value, VALUE="{$fieldval}*" --Table line 39, 40, 54, respectively) of said second data processing cell specification.

**As per claims 4-5**, Renner discloses wherein one or both of said first and second data processing cell specifications comprise one or more attributes specifications specifying one or more attributes of the corresponding data processing cells(e.g. line 33, Table 4: *xsl: variable name=, xsl:value-of; TYPE= ...SIZE= ..CHECKED=*, line 54, line 64, table 4, col. 39 ); wherein the first data processing cell has a first attribute referencing a second attribute of said second data processing cell( Note: *name* is referencing a subsequent *value* attribute)

**As per claim 6**, Renner discloses wherein said second data processing cell specification comprises a reserved mnemonic for providing input (e.g. col. 39, TABLE 4, lines 54, 62, 67) to the data processing specified by the data processing specification.

**As per claim 8**, Renner discloses wherein said second data processing cell specification comprises a conditionally (e.g. col. 39, Table 4, lines 61, 66) executed formula.

**As per claims 9-10**, Renner discloses wherein said data processing specification further includes one or more global attributes *(<td width= ...align=right>* col. 39; line 80, line 54, line 64 -Table 4, col. 39) specifying one or more global processing characteristics for the specified data processing;

wherein said one or more global attributes include a global attribute specifying a format *(<FORM... </FORM>*, line 16-21; *name @type="text"*, line 26; *<...SIZE="15/>*, line 54; *<FONT ... </FONT>* lines 74-75, TABLE 4, col. 38-39 )for providing the specified data processing with an HTTP request.

**As per claim 11**, Renner discloses an apparatus comprising:

at least one storage unit having stored thereon programming instructions designed to:

receive at execution time, a data processing specification having a first and a second unnested data processing cell specification (e.g. *XSL sheets* - col. 39, line 62 to col. 42, line 34) specifying a first and a second data processing cell, with each data processing cell specification having a plurality of statements including a formula specifying an action or computation (e.g. Table 4, col. 38: *<...METHOD="POST" ACTION= "dca.dca_forum_data.set_args"> xsl: apply-templates select=...>* lines 16-18; *xsl: value-of select* - lines 26, 34, 38, 40),

the first data processing cell having a data dependency on the second data processing cell, and specified in a manner to be analyzed before the second data processing cell(Note: line 33, 36 processed before line 34, 37),

analyze in real time (e.g .Table 4, col. 38-39: first cell: line 33, 36, 39; second cell: lines 34, 37, 40 – Note: *fieldname*, *fieldlbl*, and *fieldval* depend on *@name*, *@label* and *@value*, respectively), the data processing specification to determine an execution order of said actions/computations specified by said first and second data processing cell specifications, based at least in pad on interaction or computation references between said actions or computations specified (e.g. col. 38, line 28 to col. 42, line 34 – Note: using statements and formula/action inside xsl statement tags to effectuate HTML reads on analyzing and determine order of execution based on tag sequencing of specifications therein), and

effectuate the data processing specified by the data processing specification in accordance with the determined execution order of said actions/computations specified by said first and second data processing cell specifications (e.g. col. 41, lines 42 to col .42, line 19; col 43, lines 19-50- Note: SQL calls or POST method and variable processing with value substitution thereto reads on effectuating specification according to order of execution); and at least

one processor coupled to said at Least one storage unit to execute said programming instructions (e.g. Fig. 1).

**As per claims 12-16, and 18-20** these claims correspond to claims 2-6, and 8-10, respectively; hence are rejected with the corresponding rejection as set forth therein.

**As per claim 21**, this is a 'means-plus-functions' version claim corresponding claim 1, and comprises means for:

receiving at execution time (a data processing specification having a ' first and a second unnested data processing cell ...);

analyzing in real time (the data processing specification to determine an execution order...)' and

effectuating (the data processing specified by the data processing specification in accordance...); all of these steps having been addressed in claim 1.

Hence, these limitations are herein rejected with the corresponding rejections as set forth therein.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Renner et al., USPN: 6,993,657, as applied to claims 1, 11; in view of W3C, 'XML Path Language (Xpath)' and 'XSL Transformation (XSLT) Version 1.0; *W3C Recommendation 16 November 1999*, respectively < http://www.w3.org/TR/1999/REC-xpath-19991116 > and < http://www.w3.org/TR/xslt> (hereinafter W3C – submitted in previous Office Action).

**As per claim 7**, Renner discloses XSL cells having dedicated input specifications ( re claim 6) as these are defined via means of XML and the user's template; and further teaches

providing or presenting in response to user's input required components, components for the build or a forum evaluation; or/and push back to the user's interface (e.g. Fig. 5A, 5D; step *689* – Fig. 6c; step *740* -Fig. 7; Fig. 8-9; *configuration information, necessary software* - Fig. 12B) but does not explicitly teach that said style sheet first data processing cell specifications has a reserved output cell/template specification specifying output for the data processing specification. The use of XSLT specification language to provide a reserve cell in a template for output is disclosed by W3C (e.g. *xsl: output, xsl: output method* – pg. 9-10; chp. 16.1, 16.2 pg. 79-80). Since the methodology of using XSL methodology by Renner incorporates the features by W3C and Renner's approach is using XML/XSL format via users request ( Table 4) converting input into database request returns into the building interface, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide Renner's use of W3C and style sheets specification so that dedicated XSL field or tags are reserved to define output specifications as taught by W3C. One of ordinary skill would be motivated to do this because of the interactive nature of Renner's build having the user to assess data being returned from a request; and using XSL output cell dedicated specifications as by W3C would support the correctness of data conveyed in HTML form as they are returned into Renner's building/forum or customer service communication scenario ( see Fig. 6C-D, Fig. 9, Fig. 10; col. 12, line 7 to col. 13, line 7) in that the user can assess the correct format via this output cell specification according to mime format and text/character type as mentioned by W3C in such that every build interface and submitted data field is appropriately addressed ( see Renner Fig. 5C-D).

**As per claim 17**, this claim corresponds to claim 7; hence is rejected using the same rationale as set forth therein.

***Response to Arguments***

7. Applicant's arguments filed 9/25/06 have been fully considered but they are not persuasive. Following are the Examiner's observations in regard thereto.

USC §102(e) Rejection:

(A) Applicants have submitted that Renner uses XSLT to transform XML into HTML and does not teach unnested data processing cell specifications, the first data processing cell having data dependency on the second processing cell, and specified to be analyzed before the second processing cell ( Appl. Rmrks, pg. 8, middle). The concept of 'unnested' is not treated with a particular weight to consider because as earlier addressed in the CLAIMS OBJECTIONS, the cells are treated as *unnested* only to the extent that they are distinct from each other so that one cell provide specification suggestive/indicative of a possible action (e.g. data retrieval) to be taken, the realization of which is provided in another cell. And the cited parts of Renner shows evidence that one cell specifications (first cell specification) indicate the need to provide data retrieval, the implementation of which is included in another cell (second cell specification); and the examples show value-of and *variable*, respectively. The Renner markup language reads exactly on specification of cells wherein the dependency of data from a first specification requires action taken inside specification of a second specification, so that the order of processing can only go from the first to the second, not the opposite direction. And this fulfills the above limitation of data dependency which is analyzed by a runtime engine parsing any markup language. The processing of data for such dependency is therefore 'based at least in

part on interaction or computation **references**' between the 2 specifications; that is any references from a first cell (e.g. variable) would serve as basis (entirely or partially) for interaction or computation which is realized (e.g. value-of select) by means of the specification in the second cell. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

(B) Applicants have submitted that <xsl:value-of .../> tags are always nested within the <xsl:variable/> tags; and the unnested limitation is not shown in Renner's Figure 4 ( Appl. Rmrks, pg. 9, top). Applicants would have to be referred back to the CLAIM OBJECTIONS and the use of <value-of select /> inside the examples of the Application disclosure at page 7 to see if this tag is absolutely unnested (or a stand-alone tag) in a manner that would make it 100% distinct from Renner's similar use of tag. According to W3C protocol of wrting markup language, tags are designed under a paradigm that is analogous to a tree; and as such, all tags are nested within a certain level of hierarchy under the root of a tree. The argument about Renner's tags being not really unnested is not convincing in light of the above. The argument about data dependency of the first cell relative to the second cell has been met based on the rejection and explained in section A. The dependency order in question is a feature considered well-known in the way a XSL parsing should effect; and Renner has shown plenty of such cells dependency that can only be processed in a specific direction, concerning which Applicants again are referred to the markup specifications in the Specifications to demonstrate in factual manner how the cell specifications therein (see Specifications, pg. 6-8, 12) would particularly require a different processing order than that in Renner's XSL processing.

(C ) Applicants have submitted that in Renner nowhere is teaching 'first and then second data processing cell specification to determine execution order' ( Appl. Rmrks, pg. 9). The order determining is inherent to a parsing engine such as the one of a XML, a HTML or a XSL engine; because without such determining the parsing engine would operate as a blind engine. The concept of generating a markup tree by a parser so to establish relationship and data dependency has been always understood; and the W3C language specifications falls under this tree parsing basic concept, rendering the order determination a must step in Renner's XSL specifications and processing engine. Since the claim language is lacking in details how analyzing a first cell prior to a second cell would be particularly different from the cell specification by Renner, Applicants again are referred to the cell specifications listing in the Specifications to show corroborating evidence as how the < value-of ... /> specifications therein (see Specifications, pg. 6-8, 12) would particularly require a different order determination than that in Renner's XSL processing, just for the sake of argument. As it stands, the claim does not provide sturdy teaching to would otherwise show that Renner's tags would necessarily be processed in a different order as interpreted from the claim.

(D) Applicants have submitted that 'tag sequencing' does not equate the claimed 'interaction or computation references' (*) by any stretch of imagination (Appl. Rmrks, pg. 9, bottom). The tag as sequenced by Renner includes tag content and it is the parser inherent to the processing of such tag hierarchy ( e.g. Table 4) that interprets the content of the tags as to gather interdependency knowledge within such hierarchy; and this knowledge about such tree nodes corresponds to what is interpreted from reading 'based at least in part on interaction or computations references between ... actions or computations specified', simply because – and

this is based on one skill in the art un-stretched interpretation -- 'interaction/computation references' and 'actions/computations specified' are merely treated as content inside each of the tags cited in the Office actions, i.e. meaning of the reference ( e.g. variable, templates) and any underlying needed action when processing such tagged reference. There is not sufficient specificity in the claim that would preclude Renner's markup tags from meeting the above limitation (*) in light of the above interpretation. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

**USC 103(a) Rejection**:

(E) Applicants have submitted that the Xpath and XSLT documents by W3C do not remedy to the deficiency of Renner ( Appl. Rmrks, pg. 10, middle). The argument is founded on Renner's deficiency, and has been proven to be insufficient as per the above sections.

Note: The remarks against the applicability of Bex is largely unconvincing; and if need be this Bex reference would be used.

The claims stand rejected as set forth in the Office Action.

***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (272) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 ( for non-official correspondence - please consult Examiner before using) or 571-273-8300 ( for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan A Vu
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December 01, 2006